

**REMARKS*****Summary of the Amendment***

Upon entry and consideration of the instant amendment, claim 35 will have been amended. Accordingly, claims 13-37 will be pending and under consideration.

***Summary of the Official Action***

In the instant Office Action, the Examiner objected to the specification and drawings. The Examiner also objected to Applicant's Rule 1.111 Amendment as introducing new matter. The Examiner also rejected 25, 29-31, 35 and 37 as failing to comply with the written description requirement. Additionally, the Examiner rejected claims 13-37 as being indefinite. The Examiner also rejected claims 13-37 over the applied art of record. By the present remarks, Applicant submits that the objections and rejections have been overcome, and respectfully request reconsideration of the outstanding Office Action and allowance of the present application.

***Present Amendment is Proper for Entry After Final***

Applicant respectfully submits that the instant amendment is proper for entry after final rejection. Applicant notes that no question of new matter is presented nor are any new issues raised in entering the instant amendment of the claims and that no new search would be required. Moreover, Applicant submits that the instant amendment places the application in condition for allowance, or at least in better form for appeal. Accordingly, Applicant requests the Examiner to enter the instant amendment, consider the merits of the same, and indicate the allowability of the present application and each of the pending claims.

Applicant note, in particular, that claim 35 has been specifically amended to address the formal drawing objection noted in the Final Office Action and consistent with the Interview of June 3, 2009. Furthermore, the Amendment does not add more claims than were previously pending.

*Interview of June 3, 2009*

Applicant appreciates the courtesy extended by Examiner Bellinger in the Interview of June 3, 2009. In the Interview, Applicant's representative discussed the following:

In regards to the drawing objection, it was pointed out that Fig. 2 clearly shows the noted claim features. The Examiner agreed that the objection was improper with regard to claims 36 and 37, and agreed that a small change to claim 35 would resolve this basis of objection;

In regards to the specification objection, it was pointed out that current USPTO rules and the MPEP recommend and/or require us to provide antecedent basis for the claim language in the specification. The Examiner agreed to reconsider this basis of objection after reviewing the instant response with such arguments;

In regards to the new matter objection, it was pointed out that Fig. 2 clearly provides full and clear support for the new claims and specification changes presented in the Rule 1.111 Amendment, and that the drawings form part of the original disclosure. The Examiner agreed to reconsider this basis of objection after reviewing Applicant's response with such arguments and citing case law which supports Applicant's position;

In regards to the Section 112, 1<sup>st</sup> and 2<sup>nd</sup> paragraph, rejections, it was pointed out that Fig. 2 clearly provides full and clear support for the rejected claims. The Examiner agreed to reconsider these rejections after reviewing Applicant's response with such arguments and citing case law which

supports Applicant's position that the drawings form part of the original disclosure and can be relied upon to provide support for any features shown, though not expressly described.

In regards to the prior art rejections, it was pointed out that the rejections appear to be based on improper hindsight and/or Applicant's disclosure instead of the applied prior art disclosure. In particular, it was noted that while the Examiner apparently believes that it would have been obvious to utilize the deformable members of member 4 of DE '738 in place of the grooves 8 on member 5 of GB '784, this combination/modification appears improper because the deformable members of member 4 of DE '784 are oriented axially to bias the tire beads axially outwardly to seat the beads in the rim whereas the grooves on member 5 of GB '784 point down towards the inner surface of the tire above the beads as in the instant invention. Furthermore, the deformable members of member 4 of DE '738 do not result in the limbs being thicker as in the invention. Thus, it appears that the Examiner is improperly utilizing Applicant's disclosure in formulating the obviousness rejection.

Finally, it was pointed out that at least claims 36 and 37 are clearly patentable over the applied documents as the applied documents clearly fail to teach or suggest that a circumferential thickness of each of the first and second flexible member is greater in a portion of the first flexible member having the first and second deformable sealing elements than at a portion of the first and second flexible members arranged adjacent the central annular body. In response, the Examiner agreed that the applied prior art fails to teach or suggest these features.

***The Drawing Objection, is Moot***

The Examiner objects to the drawings because certain features of claims 35, 36 and 37 are allegedly not shown.

By this Amendment, Applicant has herein amended claim 35 as discussed in the Interview and in a manner which is believed to resolve this basis of objection. As was noted in the Interview, it was pointed out that Fig. 2 clearly shows the noted claim features. Applicant appreciates the Examiner's agreement in the Interview that the objection was improper with regard to claims 36 and 37, and that a small change to claim 35 (as presented herein) would resolve this basis of objection;

Accordingly, Applicant requests that the Examiner withdraw this basis of objection.

***The Specification Objection, is Improper***

The Examiner objects to the specification because Applicant has added the claim language to the specification.

As explained in the Interview, current USPTO rules require that Applicant provide antecedent basis for the claims in the specification. Applicant directs the Examiner's attention to MPEP 608.01(b), and, in particular, the following section:

The specification should be objected to if it does not provide proper antecedent basis for the claims by using form paragraph 7.44.

***¶ 7.44 Claimed Subject Matter Not in Specification***

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: [1]

Accordingly, Applicant requests that the Examiner withdraw this basis of objection.

***The New Matter Objection, is Improper***

The Examiner objects to the Rule 1.111 Amendment because it allegedly introduced new matter. Applicant disagrees.

As was pointed out in the Interview, Fig. 2 clearly provides full and clear support for the new claims and specification changes presented in the Rule 1.111 Amendment. It is noted that the drawings, and in particular Fig. 2, form part of the original disclosure and provide full and clear support for the features alleged to be new matter.

To the extent that the Examiner believes that each claim feature is required to have full and express support in the description as implied in the Interview, Applicant reminds the Examiner that "the failure of the specification to specifically mention a limitation that later appears in the claims is not a fatal one when one skilled in the art would recognize upon reading the specification that the new language reflects what the specification shows has been invented." See *All Dental Prodx, LLC v. Advantage Dental Products, Inc.*, 309 F.3d 774 (Fed. Cir. 2002) noting *Eiselstein v. Frank*, 52 F.3d 1035, 1039, 34 USPQ2d 1467, 1470 (Fed. Cir. 1995). A copy of the *All Dental Prodx* is attached hereto.

Applicant also directs the Examiner's attention to the non-precedential decision in *Ex parte DUNIFON* et al. which specifically explains, on page 2, that the drawings (in this case Fig. 2 of the instant application) can be relied upon to provide support for claim features shown therein.

Thus, it is submitted that one having ordinary skill in the art would readily recognize from at least Fig. 2 all of the features of the claimed invention in view of the disclosure of the instant application.

Finally, Applicant notes that the Examiner agreed to reconsider this basis of objection after reviewing our response with such arguments and citing case law.

Accordingly, Applicant requests that the Examiner withdraw this basis of objection.

***The Section 112, 1<sup>st</sup> Paragraph, Rejection, is Improper***

The Examiner rejects claims 25, 29-31, 35 and 37 as failing to comply with the written description requirement. Applicant disagrees.

As noted in the above-noted new matter objection, Fig. 2 clearly provides full and clear support for the noted claims. It is noted that the drawings, an in particular Fig. 2, form part of the original disclosure and provide full and clear support for the features alleged to comply with the written description requirement.

Applicant again directs the Examiner's attention to the non-precedential decision in *Ex parte DUNIFON* et al. which specifically explains, on page 2, that the drawings (in this case Fig. 2 of the instant application) can be relied upon to provide support for claim features shown therein.

Applicant also directs the Examiner's attention to the non-precedential decision in *Ex parte OGAWA* et al. which specifically explains, on page 6, that the drawings need not even show all of the claim features in order to provide written description support.

Accordingly, Applicant respectfully requests reconsideration and withdrawal of this rejection.

***The Section 112, 2<sup>nd</sup> Paragraph, Rejection, is Improper***

The Examiner rejects claims 13-37 as being indefinite with regard to certain features alleged to render these claims unclear.

As explained in the Interview, when the claims are interpreted by one having ordinary skill in the art in light of the specification and drawings, each feature alleged to be unclear is in fact clear and fully described.

According to MPEP §2173.02, the test for definiteness under 35 U.S.C. 112, second

paragraph, is whether "those skilled in the art would understand what is claimed when the claim is read in light of the disclosure." *Orthokinetics, Inc. v. Safety Travel Chairs, Inc.*, 806 F.2d 1565, 1576, 1 USPQ2d 1081, 1088 (Fed. Cir. 1986). Definiteness of claim language must be analyzed, not in a vacuum, but in light of: (A) the content of the particular application disclosure; (B) the teachings of the prior art; and (C) the claim interpretation that would be given by one possessing the ordinary level of skill in the pertinent art at the time the invention was made. Moreover, the failure to provide explicit antecedent basis for terms does not always render a claim indefinite. If the scope of a claim would be reasonably ascertainable by those skilled in the art, then the claim is not indefinite. *Energizer Holdings Inc. v. Int'l Trade Comm'n*, 435 F.3d 1366, 77 USPQ2d 1625 (Fed. Cir. 2006). MPEP §2173.05(e).

As pointed out in the Interview, as each claim feature is shown and described in Applicant's disclosure, as the Examiner has not demonstrated otherwise, and as the Examiner has not interpreted the claims in light of the description, it is submitted that a *prima facie* case of indefiniteness has not been properly set forth.

Accordingly, Applicant respectfully requests reconsideration and withdrawal of this rejection.

### ***Traversal of Rejections Under 35 U.S.C. § 103***

#### **Over GB '784 with DE '738**

Applicant traverses the rejection of claims 13-17, 22, 23, 25, 26 and 29-37 under 35 U.S.C. §103(a) as being unpatentable over GB 787,784 in view of DE 1 021 738.

In the rejection, the Examiner asserted that a fair combination of the teachings of GB '784 and DE '738 disclosed or suggested all the recited features of these claims, including the recited

deformable sealing elements. Applicant respectfully traverses this rejection.

Applicant respectfully submits that this rejection is improper because no proper combination of GB '784 and DE '738 discloses or suggests: inter alia, that, when the sealing ring is in an un-installed state, the deformable sealing elements are arranged on and project from a radially inwardly pointing surface of each annular limb so as to extend over a circumference of the annular limb, as recited in independent claim 13; inter alia, a sealing ring that, in an un-installed state, comprises first deformable sealing elements formed on the first flexible member and projecting from the inner surface toward the rim outer surface when the sealing ring is installed on the vehicle wheel and second deformable sealing elements formed on the second flexible member and projecting from the inner surface toward the rim outer surface when the sealing ring is installed on the vehicle wheel, wherein free ends of the first deformable sealing elements define different diameters on the first side and free ends of the second deformable sealing elements define different diameters on the second side, as recited in independent claim 30; and inter alia, that a circumferential thickness of the first flexible member is greater in a portion of the first flexible member having the first deformable sealing elements than at a portion of the first flexible member arranged adjacent the central annular body and that a circumferential thickness of the second flexible member is greater in a portion of the second flexible member having the second deformable sealing elements than at a portion of the second flexible member arranged adjacent the central annular body, as recited in independent claim 37.

As a preliminary matter, Applicant notes that the Examiner agreed in the Interview that the features of claims 35-37 are not disclosed or suggested by these documents. Accordingly, Applicant submits that the rejection of at least these claims be withdrawn.



With regard to claims 13 and 30, Applicant acknowledges that the figure of GB '784 shows a tire 4 and a sealing ring 5 having annular limbs 7 with grooves 8. Applicant submits, however, that GB '784 only shows what the ring 5 looks like in an installed state and with the tire under pressure. Thus, it is not apparent that GB '784 teaches or suggests the recited deformable sealing elements, much less, that, when the sealing ring is in an un-installed state, the deformable sealing elements are arranged on and project from a radially inwardly pointing surface of each annular limb so as to extend over a circumference of the annular limb, as recited in claim 13 and/or a sealing ring that, in an un-installed state, comprises first deformable sealing elements formed on the first flexible member and projecting from the inner surface toward the rim outer surface when the sealing ring is installed on the vehicle wheel and second deformable sealing elements formed on the second flexible member and projecting from the inner surface toward the rim outer surface when the sealing ring is installed on the vehicle wheel, wherein free ends of the first deformable sealing elements define different diameters on the first side and free ends of the second deformable sealing elements define different diameters on the second side, as recited in independent claim 30. Applicant notes, for example, that the radially inwardly pointing surface of each annular limb 7 is just as likely to be defined by the free ends of the limb portions arranged between the grooves 8 so as to preclude them from projecting from this surface as is shown in Fig. 2 of Applicant's application.

DE '738 does not cure the deficiencies of GB '784. While Applicant acknowledges that DE '738 teaches a sealing member 4 which apparently utilizes deformable members, it is apparent that one having ordinary skill in the art would substitute of the grooves 8 of the member shown in GB '784 with the deformable members of member 4 of DE '738. Applicant notes that the member 4 in DE '738 apply an essentially axial force to axial annular surfaces of the beads 2 of the tire whereas

the grooves 8 of member 5 in GB '784 apply an essentially radially inwardly directed force to an essentially circumferential outer surface (albeit tapered) above the bead 3.

This distinction is not without a difference. Whereas the grooves 8 of GB 784 press against a portion of the tire along a generally radial direction whose force vector intersects an outer circumferential portion of the rim 1, the so-called deformable member of the member 4 in DE '738 press against a portion of the tire along an axial direction whose force vector does not intersect an outer circumferential portion of the rim.

Furthermore, it is submitted that the asserted combination/modification appears improper because the so-called deformable members of member 4 of DE '784 are oriented axially to bias the tire beads axially outwardly to seat the beads in the rim whereas the grooves on member 5 of GB '784 point down towards the inner surface of the tire above the beads and appear to play no role in biasing the tire beads axially outwardly to seat the beads in the rim. Instead, in GB '784, it appears to be the center portion 5a (not the wings 7) which biases the tire beads axially outwardly to seat the beads in the rim.

Finally, it is noted that none of the applied documents even remotely disclose or suggest that the deformable sealing elements are arranged on and project from a radially inwardly pointing surface of each annular limb (claim 13) and/or projecting from the inner surface toward the rim outer surface (claim 30). Again, the sealing member 5 shown in GB '784 shows grooves 8 arranged in the wings 7, but nothing projecting from a radially inwardly pointing surface of each annular limb. Similarly, the sealing member 4 shown in DE '738 shows projections arranged in axial end surfaces, but not on any wings and these projections clearly do not project from a radially inwardly pointing surface of each annular limb.

For the foregoing reasons and because each of these documents fails to disclose the above-noted features of the instant invention, Applicant submits that no proper modification of this document disclose or suggests each and every recited feature of claims 13 and 30. Accordingly, Applicant submits that the Examiner has failed to provide an adequate evidentiary basis to support a rejection of unpatenability under 35 U.S.C. § 103(a) and that the instant rejection is improper.

Finally, Applicant submits that dependent claims 14-17, 22, 23, 25, 26, 29 and 31-36 are allowable at least for the reason that these claims depend from an allowable base claim and because these claims recite additional features that further define the present invention. In particular, Applicant submits that no combination of GB '784 and DE '738 discloses or suggests; that the deformable sealing elements are configured radially outside the central annular body and project by a same amount from the radially inwardly pointing surface of the annular limb as recited in claim 14; that the deformable sealing elements are sealing lips having rounded free ends as recited in claim 15; that the sealing elements are a plurality of sealing lips distributed in a radial direction and oriented in the circumferential direction as recited in claim 16; that the sealing lips extend away from the annular limb substantially perpendicularly with respect to a surface of the annular limb as recited in claim 17; that an axial spacing between axial outer sides of the annular limbs in a first radial position which corresponds to a radial position of radially inner ends of the annular limbs is smaller than an axial bead spacing ( $t_1$ ) of the tire beads in a mounted operating state on the rim in the first radial position, an axial spacing between the axial outer sides of the annular limbs in a second radial position which corresponds to a radial position of the radially outer ends of the annular limbs is greater than an axial bead spacing ( $t_2$ ) of the tire beads in the mounted operating state on the rim in the second radial position, and an axial spacing between the axial outer sides of the annular limbs in

a region of the sealing elements is greater than an axial bead spacing ( $t_1$ ) of the tire beads in the mounted operating state on the rim in the first radial position as recited in claim 22; and that the axial spacing between the axial outer sides of the annular limbs in a region at least of the radially outer sealing elements which are configured on the annular limbs is greater than a respective axial bead spacing of the tire beads in the mounted operating state on the rim in the radial position as recited in claim 23; that the deformable sealing elements are sealing lips oriented in the circumferential direction such that in the un-installed state, free ends of the deformable sealing elements define different diameters as recited in claim 25; that the sealing elements are three to six sealing lips extending over the entire circumference of the sealing ring as recited in claim 26; that the deformable sealing elements are separated by grooves whose bottoms define different diameters and comprise sealing lips having rounded free ends which define different diameters as recited in claim 29; that the first and second deformable sealing elements are separated by grooves whose bottoms define different diameters on each of the first and second sides as recited in claim 31; that the free ends of the first and second deformable sealing elements are rounded as recited in claim 32; that the bottoms of the grooves are rounded as recited in claim 33; that the free ends of the first and second deformable sealing elements are rounded as recited in claim 34; that a circumferential thickness of the first flexible member is greater at a free end area thereof than at a portion of the first flexible member arranged adjacent the central annular body and wherein a circumferential thickness of the second flexible member is greater at a free end area thereof than at a portion of the second flexible member arranged adjacent the central annular body as recited in claim 35; and that a circumferential thickness of the first flexible member is greater in a portion of the first flexible member having the first deformable sealing elements than at a portion of the first flexible member arranged adjacent the

central annular body and wherein a circumferential thickness of the second flexible member is greater in a portion of the second flexible member having the second deformable sealing elements than at a portion of the second flexible member arranged adjacent the central annular body as recited in claim 36.

Accordingly, Applicant respectfully requests reconsideration and withdrawal of this rejection and further requests that the above noted claims be indicated as allowable.

Over GB '784 and DE '738 with Veux

Applicant traverses the rejection of claims 18, 19, 21, 24, 27 and 28 under 35 U.S.C. §103(a) as being unpatentable over GB '784 and DE '738 in view of U.S. Patent No. 7,104,300 to VEUX et al.

In the rejection, the Examiner asserted that a fair combination of the teachings of GB '784, DE '738, and VEUX discloses all the recited features of these claims. Applicant respectfully traverses this rejection.

Applicant respectfully submits that this rejection is improper because no proper combination of GB '784, DE '738 and VEUX discloses or suggests: inter alia, that, when the sealing ring is in an un-installed state, the deformable sealing elements are arranged on and project from a radially inwardly pointing surface of each annular limb so as to extend over a circumference of the annular limb, as recited in amended independent claim 13.

As explained above, while Applicant acknowledges that the figure of GB '784 shows a tire 4 and a sealing ring 5 having annular limbs 7 with grooves 8, Applicant submits GB '784 only shows what the ring 5 looks like in an installed state and with the tire under pressure. Thus, it is not

apparent that GB '784 teaches or suggests the recited deformable sealing elements, much less, that, when the sealing ring is in an un-installed state, the deformable sealing elements are arranged on and project from a radially inwardly pointing surface of each annular limb so as to extend over a circumference of the annular limb, as recited in claim 13. Applicant again notes, for example, that the radially inwardly pointing surface of each annular limb 7 is just as likely to be defined by the free ends of the limb portions arranged between the grooves 8 so as to preclude them from projecting from this surface as in Fig. 2 of Applicant's application.

DE '738 does not cure the deficiencies of GB '784. While Applicant acknowledges that DE '738 teaches a sealing member 4 which apparently utilizes deformable members, it is apparent that one having ordinary skill in the art would substitute of the grooves 8 of the member shown in GB '784 with the deformable members of member 4 of DE '738. Applicant notes that the member 4 in DE '738 apply an essentially axial force to axial annular surfaces of the beads 2 of the tire whereas the grooves 8 of member 5 in GB '784 apply an essentially radially inwardly directed force to an essentially circumferential outer surface (albeit tapered) above the bead 3.

VEUX does not cure the deficiencies of GB '784 and DE '738. The ring shown in Fig. 2 of VEUX, for example, shows no deformable elements arranged on rim facing surface of members 26 and 28-31. As such, VEUX, like GB '784, fails to teach or suggest the recited deformable sealing elements, much less, that, when the sealing ring is in an un-installed state, the deformable sealing elements are arranged on and project from a radially inwardly pointing surface of each annular limb so as to extend over a circumference of the annular limb, as recited in claim 13.

For the foregoing reasons and because each of these documents fails to disclose the above-noted features of the instant invention, Applicant submits that no proper combination of these

documents disclose or suggests each and every recited feature of claim 13. Accordingly, Applicant submits that the Examiner has failed to provide an adequate evidentiary basis to support a rejection of unpatenability under 35 U.S.C. § 103(a) and that the instant rejection is improper.

Finally, Applicant submits that dependent claims 18, 19, 21, 24, 27 and 28 are allowable at least for the reason that these claims depend from an allowable base claim and because these claims recite additional features that further define the present invention. In particular, Applicant submits that no proper combination of GB '784, DE '738 and VEUX discloses or suggests; that the sealing ring further comprises a reinforcing member structured to reinforce an annular body formed on the central annular body between the annular limbs as recited in claim 18; that the reinforcement member is one or more radial elevations configured on the radial outer side of the annular body as recited in claim 19; that the sealing ring further comprises a reinforcing rib oriented in the circumferential direction as recited in claim 21; that the difference of the axial spacing between the axial outer sides of the two limbs minus the axial bead spacing of the tire beads in the mounted operating state in the respectively assigned radial position decreases in the radial direction from one sealing element to the next sealing element as recited in claim 24; that the reinforcing rib extends over the entire circumference of the annular body and configured on the radial outer side of the central annular body between the annular limbs as recited in claim 27; that the axial spacing between the axial outer sides of the annular limbs in the region of all the sealing elements which are configured on the annular limbs is greater than a respective axial bead spacing of the tire beads in the mounted operating state on the rim in the radial position as recited in claim 28.

Accordingly, Applicant respectfully requests reconsideration and withdrawal of this rejection and further requests that the above noted claims be indicated as allowable.

Over GB '784, DE '738, and Veux with Medynski

Applicant traverses the rejection of claim 20 under 35 U.S.C. §103(a) as being unpatentable over GB '784, DE '738, and VEUX and further in view of U.S. Patent No. 1,621,021 to MEDYNSKI.

In the rejection, the Examiner asserted that a fair combination of the teachings of GB '784, DE '738, VEUX and MEDYNSKI discloses all the recited features of these claims. Applicant respectfully traverses this rejection.

Applicant respectfully submits that this rejection is improper because no proper combination of GB '784, DE '738, VEUX and MEDYNSKI discloses or suggests: inter alia, that, when the sealing ring is in an un-installed state, the deformable sealing elements are arranged on and project from a radially inwardly pointing surface of each annular limb so as to extend over a circumference of the annular limb, as recited in amended independent claim 13.

As explained above, while Applicant acknowledges that the figure of GB '784 shows a tire 4 and a sealing ring 5 having annular limbs 7 with grooves 8, Applicant submits GB '784 only shows what the ring 5 looks like in an installed state and with the tire under pressure. Thus, it is not apparent that GB '784 teaches or suggests the recited deformable sealing elements, much less, that, when the sealing ring is in an un-installed state, the deformable sealing elements are arranged on and project from a radially inwardly pointing surface of each annular limb so as to extend over a circumference of the annular limb, as recited in claim 13. Applicant again notes, for example, that the radially inwardly pointing surface of each annular limb 7 is just as likely to be defined by the free ends of the limb portions arranged between the grooves 8 so as to preclude them from projecting from this surface as in Fig. 2 of Applicant's application.



DE '738 does not cure the deficiencies of GB '784. While Applicant acknowledges that DE '738 teaches a sealing member 4 which apparently utilizes deformable members, it is apparent that one having ordinary skill in the art would substitute of the grooves 8 of the member shown in GB '784 with the deformable members of member 4 of DE '738. Applicant notes that the member 4 in DE '738 apply an essentially axial force to axial annular surfaces of the beads 2 of the tire whereas the grooves 8 of member 5 in GB '784 apply an essentially radially inwardly directed force to an essentially circumferential outer surface (albeit tapered) above the bead 3.

VEUX does not cure the deficiencies of GB '784 and DE '738. The ring shown in Fig. 2 of VEUX, for example, shows no deformable elements arranged on rim facing surface of members 26 and 28-31. As such, VEUX, like GB '784, fails to teach or suggest the recited deformable sealing elements, much less, that, when the sealing ring is in an un-installed state, the deformable sealing elements are arranged on and project from a radially inwardly pointing surface of each annular limb so as to extend over a circumference of the annular limb, as recited in claim 13.

MEDYNSKI does not cure the deficiencies of GB '784, DE '738 and VEUX. The ring shown in Fig.3 of MEDYNSKI, for example, shows no deformable elements arranged on rim facing surface of members 10. As such, MEDYNSKI, like GB '784 and VEUX, fails to teach or suggest the recited deformable sealing elements, much less, that, when the sealing ring is in an un-installed state, the deformable sealing elements are arranged on and project from a radially inwardly pointing surface of each annular limb so as to extend over a circumference of the annular limb, as recited in claim 13. Furthermore, the sealing member in MEDYNSKI, like that of DE '738, applies an essentially axial force to axial annular surfaces of the beads 19 of the tire whereas the grooves 8 of member 5 in GB '784 apply an essentially radially inwardly directed force to an essentially

circumferential outer surface (albeit tapered) above the bead 3.

For the foregoing reasons and because each of these documents fails to disclose the above-noted features of the instant invention, Applicant submits that no proper combination of these documents disclose or suggests each and every recited feature of claim 13. Accordingly, Applicant submits that the Examiner has failed to provide an adequate evidentiary basis to support a rejection of unpatenability under 35 U.S.C. § 103(a) and that the instant rejection is improper.

Finally, Applicant submits that dependent claim 20 is allowable at least for the reason that this claim depends from an allowable base claim and because this claim recites additional features that further define the present invention. In particular, Applicant submits that no proper combination of GB '784, DE '738, VEUX and MEDYNSKI discloses or suggests; that the sealing ring further comprises a hollow space formed at least in one radial elevation as recited in claim 20.

Accordingly, Applicant respectfully requests reconsideration and withdrawal of this rejection and further requests that the above noted claims be indicated as allowable.

***Application is Allowable***

Thus, Applicant respectfully submits that each and every pending claim of the present invention meets the requirements for patentability under 35 U.S.C. §§ 112, 102 and 103, and respectfully request the Examiner to indicate allowance of each and every pending claim of the present invention.

***Authorization to Charge Deposit Account***

The Commissioner is authorized to charge to Deposit Account No. 19-0089 any necessary

fees, including any extensions of time fees required to place the application in condition for allowance by Examiner's Amendment, in order to maintain pendency of this application.

### CONCLUSION

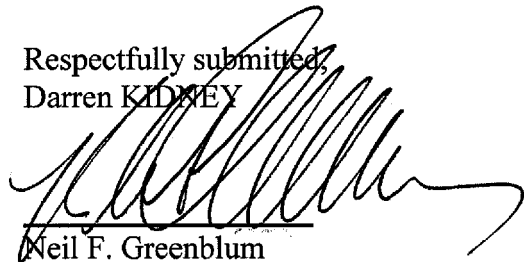
In view of the foregoing, it is submitted that none of the references of record, either taken alone or in any proper combination thereof, anticipate or render obvious the Applicant's invention, as recited in each of the pending claims. The applied references of record have been discussed and distinguished, while significant claimed features of the present invention have been pointed out.

Accordingly, reconsideration of the outstanding Office Action and allowance of the present application and all the claims therein are respectfully requested and now believed to be appropriate.

Should there be any questions, the Examiner is invited to contact the undersigned at the below-listed telephone number.

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The opinion in support of the decision being entered today was *not* written for publication and is *not* binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* THOMAS A. DUNIFON and JENNIFER R. WOLFE

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Appeal 2006-2998  
Application 09/956,524  
Technology Center 1700

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Decided: September 29, 2006

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Before KIMLIN, WALTZ, and FRANKLIN *Administrative Patent Judges*.

FRANKLIN, *Administrative Patent Judge*.

DECISION ON APPEAL

This is a decision on appeal from the Examiner's final rejection of claims 1 through 12.

A copy of claim 1 is set forth below:

1. An apparatus for press binding glass sheets comprising:  
a male mold and a female mold positioned to press a glass sheet between them, said male mold having a pressing surface facing said female mold, said pressing surface having a contoured shape to press bend the glass sheet into a specific shape, wherein said contoured

surface of said male mold is curved in a first direction and in a second direction transverse to said first direction;

said male mold including a plurality of heating elements disposed through said male mold; and

each of said heating elements being disposed to substantially follow said contoured shape of said pressing surface to maintain a substantially constant distance from said pressing surface of said male mold.

Claims 1 through 12 stand rejected under 35 U.S.C. § 112, ¶ 1 (written description).

Claims 1, 2, 5 to 8, 11 and 12 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Flaughner.

Claims 3 and 9 stand rejected under 35 U.S.C. § 103 as being unpatentable over Flaughner in view of Pickard.

Claims 4 and 5 stand rejected under 35 U.S.C. § 103 as being unpatentable over Flaughner in view of Woodward.

To the extent that the commonly rejected claims have been separately argued, they will be individually considered in our assessment of the respective rejections advanced on this appeal. *See In re Dance*, 160 F.3d 1339, 1340 n.2, 48 USPQ2d 1635, 1636 n.2 (Fed. Cir. 1998). *Also see* 37 C.F.R. § 41.37(c)(1)(vii)(Sep. 2004).

The Examiner relies upon the following references as evidence of unpatentability:

Pickard	US 3,753,673	Aug. 21, 1973
Flaughner	US 5,346,526	Sep. 13, 1994
Woodward	US 5,755,845	May 26, 1998

## OPINION

We have carefully reviewed Appellants' Brief and Reply Brief and the Examiner's Answer and the evidence of record. This review has led us to the following determinations.

I. *The 35 U.S.C. § 112, ¶ 1 (written description) Rejection*

On page 3 of the Answer, the Examiner states that the disclosure as filed does not support a first longitudinal axis, a second axis transverse to the first axis, or a surface curvature both a first and second axis.

Beginning on page 10 of the Brief, Appellants point out how the figures, specifically how Figures 2 and 3, show a curvature in a first direction and a curvature in a second direction, transverse to the first direction, as depicted in Figure 3. Appellants argue that Figure 3 is a sectional view along line 33 of Figure 2, and also shows a curvature transverse to the curvature depicted in Figure 2.

We agree with the Appellants that the Figures support the claimed aspect regarding a male mold that is curved in a first direction and in a second direction transverse to the first direction.

On page 5 of the Answer, the Examiner responds and states that the drawing figures cannot be used to import specific structural limitations into the claims. This is an incorrect statement. It has been held that drawings can be sufficient to provide the "written description of the invention" required by § 112, first paragraph. Several cases support this conclusion. The issue in *In re Wolfensperger*, 302 F.2d 950, 133 USPQ 537 (CCPA 1962) was whether the specification of the applicant's utility patent

application disclosing a ball valve, and particularly the drawings thereof, supported a claim limitation that read: "having, in untensioned condition, a mean diameter corresponding approximately to the mean diameter of said chamber and a radial width smaller than the radial width of said chamber . . . ." *Id.* at 952, 133 USPQ at 538. The court did not agree with the Board's conclusion that the "radial width" relationship was not supported by applicant's figure 5: The board's statement that "drawings alone cannot form the basis of a valid claim" is too broad a generalization to be valid and is, furthermore, contrary to well settled and long-established Patent Office practice . . . . Consider, for one thing, that the sole disclosure in a design patent application is by means of a drawing . . . . For another thing, consider that the only informative and significant disclosure in many electrical and chemical patents is by means of circuit diagrams or graphic formulae, constituting "drawings" in the case . . . . The practical, legitimate enquiry in each case of this kind is what the drawing in fact discloses to one skilled in the art. . . . The issue here is whether there is supporting "disclosure" and it does not seem, under established procedure of long standing, approved by this court, to be of any legal significance whether the disclosure is found in the specification or in the drawings so long as it is there. *Id.* at 955-56, 133 USPQ at 541-42.

Employing a "new matter" analysis, the court in *In re Heinle*, 342 F.2d 1001, 145 USPQ 131 (CCPA 1965) reversed a PTO rejection of the applicant's claims to a "toilet paper core" as "including subject matter having no clear basis in the application as filed." *Id.* at 1003, 145 USPQ at 133. The claim limitation said to be without support required that the width of the apertures in the core be "approximately one-fourth of the circumference of

said core." *Id.* at 1007, 145 USPQ at 136. Having reviewed the application drawings relied upon for support, the court stated: it seems to us that [the drawings] conform to the one-fourth circumference limitation almost exactly. But the claim requires only an approximation. Since we believe an amendment to the specification to state that one-fourth of the circumference is the aperture width would not violate the rule against "new matter," we feel that supporting disclosure exists. The rejection is therefore in error.

*Id.*

In view of the above, we reverse the 35 U.S.C. § 112, ¶ 1 (written description) rejection of claims 1 through 12.

## II. *The 35 U.S.C. § 102(b) Rejection*

The Examiner's position for this rejection is set forth on pages 3 through 4 of the Answer and we incorporate the position therein as our own.

Appellants' position is set forth on pages 13 through 16 of the Brief and page 8 of the Reply Brief. Appellants disagree with the Examiner's position that Figures 1 and 2 of Flaughner teaches a curvature along the longitudinal and transverse axis.

Appellants also point out that the male mold according to their invention includes a plurality of heating elements disposed through the male mold. Appellants state that each of the heating elements is disposed to substantially follow the contoured shape of the pressing surface to maintain a substantially constant distance from the pressing surface of the male mold. Br. 13-14.

Appellants argue on page 14 of the Brief that Flaughner does not show a curvature of the pressing surface in transverse directions as claimed.



Appellants argue that even if the surface of Flaughner showed curvature in a second direction transverse to a first direction, Flaughner would not anticipate the present claims because if there were curvature in this direction, the linear rods of Flaughner would, out of necessity, not be substantially of a constant distance from the pressing surface as the distance would vary in accordance with the curvature.

We are not convinced by Appellants' arguments for the following reasons.

First, Appellants' specification does not provide a specific description, e.g., measurements, for defining the term "substantially." Hence, we turn to the ordinary meaning of this word. As stated by the Examiner on page 5 of the Answer, the word "substantially" encompasses a relatively wide ranges of values. *In re Sinex*, 309 F.2d 488, 492, 135 USPQ 302, 305 (CCPA 1962). In this light, referring to Figure 2 of Flaughner, heating elements 70 are disposed to substantially follow the contoured shape of the pressing surface to maintain a substantially constant distance from the pressing surface of the male mold. We see no difference between that depicted in Figure 2 of Flaughner and that claimed in the last paragraph of Appellants' claim 1, in light of the claim interpretation discussed herein.

Second, we agree with the Examiner's findings that the figures in Flaughner depict a curvature along the longitudinal axis and transverse axis. For example, both drawings of Figure 3 depict such a feature. We do note that the C.C.P.A. has recognized a subtle distinction between a written description adequate to *support* a claim under §112 and a written description sufficient to *anticipate* its subject matter under §102(b). The difference between "claim-supporting disclosures" and "claim-anticipating disclosures"

is discussed in *In re Lukach*, 442 F.2d 967, 169 USPQ 795 (CCPA 1971). The facts in the instant case differ from *In re Lukach* in that the facts before us support *both* (1) our determination that Flaughers' written description (e.g., the figures) anticipates Appellants' claims, and (2) our determination made, *supra*, regarding the reversal of the 35 U.S.C. § 112, ¶ 1 (written description) rejection.

In view of the above, we therefore affirm the 35 U.S.C. § 102(b) rejection of claims 1, 2, 5 through 8, 11 and 12.

### III. *The 35 U.S.C. § 103 Rejections*

The 35 U.S.C. § 103 rejection of claims 3 and 9 as being unpatentable over Flaughers in view of Pickard and the 35 U.S.C. § 103 rejection of claims 4 and 5 as being unpatentable over Flaughers in view of Woodward are also affirmed for the reasons discussed above. That is, we note that Appellants only separately argue claim 1. For example, on page 16 of the Brief, Appellants state that claims 3 and 9 depend from what are believed to be allowable base claims and are therefore allowable. Likewise, on page 17 of the Brief, Appellants state that claims 4 and 10 depend from what are believed to be allowable base claims.

We therefore also affirm each of these obviousness rejections.

### IV. *Conclusion*

The 35 U.S.C. § 112, ¶ 1 (written description) rejection of claims 1 through 12 is reversed.

The 35 U.S.C. § 102(b) rejection of claims 1, 2, 5 through 8, 11 and 12 as being anticipated by Flaughers is affirmed.

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Application 09/956,524

The 35 U.S.C. § 103 rejection of claims 3 and 9 as being unpatentable over Flaughner in view of Pickard is affirmed.

The 35 U.S.C. § 103 rejection of claims 4 and 10 as being unpatentable over Flaughner in view of Woodward is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(iv)(effective Sept. 13, 2004).

AFFIRMED

*MARSHALL & MELHORN  
FOUR SEAGATE, EIGHT FLOOR  
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BAF/hh

**United States Court of Appeals for the Federal Circuit**

02-1107

ALL DENTAL PRODX, LLC and  
DMG DENTAL-MATERIAL GESELLSCHAFT MBH,

Plaintiffs-Appellees,

v.

ADVANTAGE DENTAL PRODUCTS, INC.,

Defendant-Appellant.

Jeffrey M. Butler, Kenyon & Kenyon, of New York, New York, argued for plaintiffs-appellees. With him on the brief were Richard L. Mayer, and Jeffrey S. Ginsberg.

Douglas W. Sprinkle, Gifford, Krass, Groh, Sprinkle, Anderson & Citkowski, P.C., of Birmingham, Michigan, argued for defendant-appellant.

Appealed from: United States District Court for the Eastern District of New York

Senior Judge Jacob Mishler

# United States Court of Appeals for the Federal Circuit

02-1107

ALL DENTAL PRODX, LLC and DMG DENTAL-MATERIAL GESELLSCHAFT MBH,

Plaintiffs-Appellees,

v.

ADVANTAGE DENTAL PRODUCTS, INC,

Defendant-Appellant.

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DECIDED: October 25, 2002

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Before NEWMAN, Circuit Judge, FRIEDMAN, Senior Circuit Judge, and LOURIE, Circuit Judge.

LOURIE, Circuit Judge.

Advantage Dental Products, Inc. appeals from the decision of the United States District Court for the Eastern District of New York granting the declaratory judgment plaintiffs All Dental Prodx, LLC and DMG Dental-Material Gesellschaft mbH (collectively, "All Dental") summary judgment that Advantage Dental's U.S. Patent 5,213,498 is invalid and not infringed by All Dental. All Dental Prodx, LLC v. Advantage Dental Prods., Inc., CV-00-2393,-5785 (E.D.N.Y. Aug. 7, 2001). Because the '498 patent has not been shown to be invalid, we reverse that portion of the judgment. Because there are no genuine issues of material fact that All Dental does not infringe the patent, we affirm that portion of the judgment. Accordingly, we affirm-in-part and reverse-in-part.

## BACKGROUND

Advantage owns the '498 patent, which is directed to a method for making a custom dental impression tray. Dentists typically form an impression of a patient's tooth or teeth as part of the process for constructing a crown, cap, or other dental appliance. '498 patent, col. 1, ll. 14-16. The '498 patent describes the prior art impression process as utilizing a suitably sized tray filled with alginate and then placing the tray over the tooth or teeth of which an impression is desired; as the alginate sets, it forms an impression of the area of interest. Id. at ll. 19-26. The invention of the '498 patent improves this process by utilizing less expensive materials and reducing the patient's "chair time." Id. at ll. 31-49. The '498 patent discloses that polycaprolactone, after being heated to the point of pliability (approximately 140°F), can be comfortably molded directly over a person's teeth, without the need for a tray or container. Id. at col. 2, ll. 36-43. After cooling to body temperature, the polycaprolactone mold is rigid, thus forming an impression. Id.

The patent contains two claims, both of which are independent method claims reciting, inter alia, the following step:

- (1) heating an original unidentified mass of thermosetting\* material to a predetermined temperature range at which the thermosetting material becomes pliable, . . .

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\* At oral argument, counsel for Advantage conceded that the term "thermosetting" should have been "thermoplastic" in order to correctly describe a material that becomes pliable on heating. We will therefore use the term "thermoplastic" further in this opinion.

Id. at col. 4, ll. 46-49, 58-61 (emphasis added). The specification does not define the phrase "original unidentified mass," which was introduced into the claims during prosecution. In the first Office Action, the claims were rejected as unpatentable under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent 4,227,877, issued to Tureaud et al., which discloses an acrylic thermoplastic material shaped anatomically in the form of a dental impression tray that can be directly molded within a person's mouth. In response to the rejection, the applicant remarked that Tureaud "does not teach or disclose providing the thermosetting material in an original unidentified mass." Not persuaded, the Examiner again rejected the claims on the same ground, explaining that the "claims do not recite the material in an 'original unidentified mass', rather, they simply recite a material." The applicant later amended the claims to recite that phrase. The Examiner then withdrew the rejection based on Tureaud and rejected the claims as being anticipated by U.S. Patent 4,413,979, issued to Ginsburg et al., which discloses a sheet of moldable thermoplastic material having two ridges to facilitate folding of the sheet into a Ushape to encompass a quadrant of a person's teeth. The applicant traversed the Ginsburg rejection, explaining that the claimed invention "teaches away from applying the thermosetting material in any specific form, such as the preformed sheets disclosed by Ginsburg." The Examiner then allowed the claims and the patent thereafter issued.

All Dental sells a TEMP TABS TRUE BLUE product, which is a flat, oval-shaped polycaprolactone tablet. The tablet is heated until pliable and then molded over a person's tooth where it cools and hardens, thereby making a dental impression. All Dental brought suit seeking a declaratory judgment that the '498 patent was invalid and not infringed by its tablet. The court construed the phrase "original unidentified mass" to mean "a mass that does not have specific preformed size and shape." All Dental Prodx, slip op. at 11. The court granted All Dental summary judgment of noninfringement apparently because the All Dental tablets

have a specific preformed shape and size. Id. The court also held both claims of the patent invalid under § 112, ¶¶ 1 and 2. Id. Finding no definition of the phrase “original unidentified mass” in either the patent specification or the prosecution history, the court concluded that “a person skilled in the art would not be able to understand the bounds of the claims.” Id. The court also concluded that the patent “lacks a written description of the invention.” Id.

Advantage Dental appeals from the district court’s grant of summary judgment. We have jurisdiction under 28 U.S.C. § 1295(a)(1).

### DISCUSSION

We review a district court’s grant of summary judgment de novo, reapplying the same standard used by the district court. Ethicon Endo-Surgery, Inc. v. United States Surgical Corp., 149 F.3d 1309, 1315, 47 USPQ2d 1272, 1275 (Fed. Cir. 1998). Summary judgment is appropriate “if the pleadings, depositions, answers to interrogatories, and admissions on file, together with the affidavits, if any, show that there is no genuine issue as to any material fact and that the moving party is entitled to a judgment as a matter of law.” Fed. R. Civ. P. 56(c). “The evidence of the nonmovant is to be believed, and all justifiable inferences are to be drawn in his favor.” Anderson v. Liberty Lobby, Inc., 477 U.S. 242, 255 (1986).

A determination of patent infringement requires a two-step analysis. “First, the court determines the scope and meaning of the patent claims asserted . . . [Second,] the properly construed claims are compared to the allegedly infringing device.” Cybor Corp. v. FAS Techs., Inc., 138 F.3d 1448, 1454, 46 USPQ2d 1169, 1172 (Fed. Cir. 1998) (en banc) (citations omitted). Step one, claim construction, is an issue of law, Markman v. Westview Instruments, Inc., 52 F.3d 967, 970-71, 34 USPQ2d 1321, 1322 (Fed. Cir. 1995) (en banc), aff’d, 517 U.S. 370 (1996), that we review de novo, Cybor, 138 F.3d at 1456, 46 USPQ2d at 1172. Step two, comparison of the claim to the accused device, requires a determination that every claim limitation or its equivalent be found in the accused device. Warner-Jenkinson Co.



v. Hilton Davis Chem. Co., 520 U.S. 17, 29 (1997). Those determinations are questions of fact. Bai v. L & L Wings, Inc., 160 F.3d 1350, 1353, 48 USPQ2d 1674, 1676 (Fed. Cir. 1998).

The question whether the subject matter of a patent claim fails to meet the written description requirement of 35 U.S.C. § 112, ¶ 1 is a question of fact. Vas-Cath Inc. v. Mahurkar, 935 F.2d 1555, 1563, 19 USPQ2d 1111, 1116 (Fed. Cir. 1991). A determination that a patent claim is invalid for failure to meet the definiteness requirement of 35 U.S.C. § 112, ¶ 2 is "a legal conclusion that is drawn from the court's performance of its duty as the construer of patent claims[, and] therefore, like claim construction, is a question of law that we review de novo." Atmel Corp. v. Info. Storage Devices, Inc., 198 F.3d 1374, 1378, 53 USPQ2d 1225, 1227 (Fed. Cir. 1999) (citing Personalized Media Communications, LLC v. Int'l Trade Comm'n, 161 F.3d 696, 705, 48 USPQ2d 1880, 1888 (Fed. Cir. 1998)).

Advantage argues that the district court improperly concluded that the '498 patent fails to satisfy both paragraphs of 35 U.S.C. § 112, without providing reasoning for those conclusions. As to the adequacy of the written description, Advantage contends that, while the phrase "original unidentified mass" does not literally appear in the specification, one skilled in the art would recognize and know how to practice the claimed invention using "an original unidentified mass" upon reading the specification. As to definiteness, Advantage contends that, while the meaning of the phrase "original unidentified mass" is neither facially apparent nor defined in the patent specification, the prosecution history clarifies the phrase to mean any shape different from a complete impression tray. On the issue of infringement, Advantage argues, based upon its proposed construction of the phrase "original unidentified mass," that All Dental infringes the patent because its tablets are clearly not in the form of a dental impression tray.

All Dental responds that the "original unidentified mass" language does not appear anywhere in the originally filed patent application, and that it was new matter added during prosecution, arguably in violation of the statute. While acknowledging that the specification need not provide in haec verba support for the language added to the claim, All Dental argues that the originally filed disclosure did not allow one skilled in the art to immediately discern that an "original unidentified mass" limitation was part of the definition of the invention. All Dental also contends that the applicant did not properly act as his own lexicographer in defining the meaning of the phrase "original unidentified mass," as he failed to clearly define the phrase. All Dental further contends that if the phrase "original unidentified mass" is to have any meaning at all, then it must be that the material lacks a specific preformed shape and size, as the district court concluded. All Dental asserts that its accused tablets do not infringe the '498 patent because they clearly have a preformed shape, viz., a generally flat, oblong shape.

We agree with Advantage that there are no genuine issues of material fact concerning whether its patent claims comply with the written description requirement of section 112, first paragraph. While the contested language is not a model of clarity, it is also fairly simple and intelligible, capable of being understood in the context of the patent specification. It is thus reasonably clear what the invention is and that the patent specification conveys that meaning.

Section 112, first paragraph, states, inter alia: "The specification shall contain a written description of the invention." 35 U.S.C. § 112, ¶ 1 (2000). In order to comply with the written description requirement, the specification "need not describe the claimed subject matter in exactly the same terms as used in the claims; it must simply indicate to persons skilled in the art that as of the [filing] date the applicant had invented what is now claimed." Eiselstein v. Frank, 52 F.3d 1035, 1038, 34 USPQ2d 1467, 1470 (Fed. Cir. 1995) (citing Vas-Cath, 935 F.2d at 1562, 19 USPQ2d at 1115, and In re Wertheim, 541 F.2d 257, 265, 191 USPQ 90, 98 (CCPA 1976)).

The application for the '498 patent as originally filed did not contain the phrase "original unidentified mass"; indeed, there is no mention of the starting material's shape or form anywhere in the patent specification. However, the failure of the specification to specifically mention a limitation that later appears in the claims is not a fatal one when one skilled in the art would recognize upon reading the specification that the new language reflects what the specification shows has been invented. See Eiselstein, 52 F.3d at 1039, 34 USPQ2d at 1470. Here, the invention involves heating a mass of thermoplastic material that lacks an identifiable form. That invention is described in the specification, albeit not in haec verba. It is also clear what the invention is not. It does not involve heating a thermoplastic mass having an identifiable form or shape. We therefore conclude that there are no genuine issues of material fact that the specification describes the claimed invention within the meaning of the statute. Thus, summary judgment of invalidity for failure to satisfy the written description requirement was erroneous and is therefore reversed.

We also agree with Advantage that its claims comply with the definiteness requirement of section 112, second paragraph. That section states: "The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention." The primary purpose of the definiteness requirement is to ensure that the claims are written in such a way that they give notice to the public of the extent of the legal protection afforded by the patent, so that interested members of the public, e.g., competitors of the patent owner, can determine whether or not they infringe. Warner-Jenkinson, 520 U.S. at 28-29. That determination requires a construction of the claims according to the familiar canons of claim construction. Only after a thorough attempt to understand the meaning of a claim has failed to resolve material ambiguities can one conclude that the claim is invalid for indefiniteness. Foremost among the tools of claim construction is of course the claim language itself, but other portions of the intrinsic evidence

are clearly relevant, including the patent specification and prosecution history. See Standard Oil Co. v. Am. Cyanamid Co., 774 F.2d 448, 452, 227 USPQ 293, 296 (Fed. Cir. 1985) ("The specification is, thus, the primary basis for construing the claims. . . . [T]he prosecution history (or file wrapper) limits the interpretation of claims so as to exclude any interpretation that may have been disclaimed or disavowed during prosecution in order to obtain claim allowance."). The prosecution history can thus be relied upon to clarify the claim meaning and hence provide definiteness. Tex. Instruments Inc. v. Int'l Trade Comm'n, 871 F.2d 1054, 1063, 10 USPQ2d 1257, 1263-64 (Fed. Cir. 1989) ("The public is entitled to know the scope of the claims but must look to both the patent specification and the prosecution history, especially when there is doubt concerning the scope of the claims." (citing McGill Inc. v. John Zink Co., 736 F.2d 666, 221 USPQ 944 (Fed. Cir. 1984))).

In this case, the prosecution history aids in clarifying the meaning of the claim phrase "original unidentified mass." The patent applicant twice distinguished his invention over the prior art on the basis of that limitation. First, the applicant distinguished his invention over Tureaud's anatomically formed tray shape as not being an "original unidentified mass." Secondly, the applicant distinguished his invention over Ginsburg's preformed sheets of thermoplastic material as "teach[ing] away from applying the thermosetting material in any specific form." Each of those statements made during prosecution disclaims a specific shape. Moreover, the second statement amounts to a characterization of the "original unidentified mass" limitation as not embracing "any specific form." Advantage's argument that the phrase "original unidentified mass" means any shape other than a complete dental tray gives effect to only the first prosecution statement while ignoring the second. Giving proper effect to both statements and the specification's clear indication of the nature of the invention, we conclude that the phrase means exactly what the district court said it means: "a mass that does not have a specific preformed size and shape." All Dental Prodx, slip op. at

11. Where we differ from the district court is on whether the phrase as so construed is indefinite. The meaning of the phrase "original unidentified mass," arrived at after reviewing the specification and consulting the prosecution history, is indeed definite and clear. Thus, the district court construed the phrase correctly, yet erred in concluding that the phrase was indefinite.

Finally, we agree with All Dental that it is entitled to summary judgment of noninfringement. Our conclusion follows from the construction of the phrase "original unidentified mass." All Dental's tablets clearly have a preformed shape; it is uncontested that they are flat, oblong-shaped tablets. Advantage's infringement assertions therefore fail to raise any genuine issues of material fact, and the court's grant of summary judgment of noninfringement is affirmed.

#### CONCLUSION

The district court erred in granting summary judgment that the '498 patent claims fail to satisfy the requirements of 35 U.S.C. § 112, and we reverse that decision. However, the court correctly granted summary judgment that Advantage's accused product does not infringe the patent, and we affirm that decision. Accordingly, we

AFFIRM-IN-PART and REVERSE-IN-PART.

#### COSTS

Costs to All Dental.

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* JUNPEI OGAWA, TOMONORI MIYAZAWA,  
YOSHIO OKADA, JUN IKEUCHI and MASASHI YAMAGUCHI

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Appeal 2007-2800  
Application 10/771,522  
Technology Center 3600

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Decided: April 29, 2008

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Before TERRY J. OWENS, HUBERT C. LORIN, and  
JOHN C. KERINS, *Administrative Patent Judges*.

OWENS, *Administrative Patent Judge*.

DECISION ON APPEAL

The Appellants appeal from a rejection of claims 1, 2, 4, 19 and 21-25. Claims 5-18 and 26-28 have been withdrawn from consideration by the Examiner, claim 3 stands objected to but allowable if rewritten in independent form, and claim 20 stands allowable.

### THE INVENTION

The Appellants claim a connecting rod. Claim 1 is illustrative:

1. A connecting rod comprising:

a connecting beam section serving as a main body of the connecting rod;

a big end located at a first end side of the connecting beam section;

a small end located at a second end side of the connecting beam section, the second end side being axially opposite to the first end side;

a first joining section located between the connecting beam section and the big end to connect the connecting beam section and the big end; and

a second joining section located between the connecting beam section and the small end to connect the connecting beam section and the small end;

wherein each of the first and second joining sections gradually and continuously decreases in cross sectional area toward the connecting beam section and has a strength distribution in which a strength increases with a decrease in the cross sectional area.

### THE REFERENCES

Mrdjenovich	US 5,048,368	Sep. 17, 1991
Haman	US 5,737,976	Apr. 14, 1998
Yoshida (JP '317)	JP 10-306317	Nov. 17, 1998
(as translated)		

### THE REJECTIONS

The claims stand rejected as follows: claims 19 and 21-25 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter the Appellants regard as the invention; claims 19 and 21-25 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement; claims 1, 2 and 4 under 35 U.S.C. § 102(b) over JP '317; claim 1 under 35 U.S.C. § 102(b) over Mrdjenovich; and claim 1 under 35 U.S.C. § 102(b) over Haman.

### OPINION

We reverse the Examiner's rejections.

#### Rejection under 35 U.S.C. § 112, second paragraph

The relevant inquiry under 35 U.S.C. § 112, second paragraph, is whether the claim language, as it would have been interpreted by one of ordinary skill in the art in light of the Appellants' Specification, sets out and circumscribes a particular area with a reasonable degree of precision and particularity. *See In re Moore*, 439 F.2d 1232, 1235 (CCPA 1971).

The Examiner argues that it is not clear in claim 19 which portions of the connecting rod are the lowest fatigue strength portion and the variable fatigue strength portion because those portions are not shown in the drawings (Office Action mailed Sep. 22, 2005, p. 5).

The Examiner's mere assertion that claim 19 is unclear because the lowest fatigue strength portion and the variable fatigue strength portion are not indicated in the drawings does not meet the burden of establishing that



the claim language, as it would have been interpreted by one of ordinary skill in the art in light of the Appellants' Specification, fails to set out and circumscribe a particular area with a reasonable degree of precision and particularity.

We point out that claim 19 states that the lowest fatigue strength portion is in at least one of the big and small ends (20 and 60, respectively, in fig. 1). Also, figure 7 shows that the regions of lowest buckling strength include the region to the left of  $P_1$  in figure 1 (the big end) and the region to the right of  $P_6$  in figure 1 (the small end). The Specification states that "joining sections 30 and 50 [fig. 1] have a strength distribution in which their strength increases with a decrease in cross sectional area" (Spec. 11:26-28). Those are the variable fatigue strength portions.

Hence, the Examiner erred in rejecting claim 19 and its dependent claims 21-25 under 35 U.S.C. § 112, second paragraph.

Rejection under 35 U.S.C. § 112, first paragraph

A specification complies with the 35 U.S.C. § 112, first paragraph, written description requirement if it conveys with reasonable clarity to those skilled in the art that, as of the filing date sought, the inventor was in possession of the invention. *See Vas-Cath Inc. v. Mahurkar*, 935 F.2d 1555, 1563-64 (Fed. Cir. 1991).

The Examiner argues that "[t]he issue whether Appellant's claims were supported by the application as filed or not is not germane since the rejection is not based on new matter" (Ans. 4).

The Examiner is incorrect. The basis for the rejection is that the present claims 19 and 21-25 lack adequate written descriptive support in the application as filed. Thus, whether those claims have adequate written descriptive support in the original disclosure is the relevant issue.

The Examiner rejected not only the presently amended claim 19, but also the originally filed claim 19 as failing to comply with the 35 U.S.C. § 112, first paragraph, written description requirement (Office Action mailed Mar. 2, 2005, pp. 4-5). As stated in *In re Wertheim*, 541 F.2d 257, 264 (CCPA 1976), "claim 4, an originally filed claim, is its own written description in the appealed application." The Examiner has not established that the Appellants' originally filed claim 19, alone or in combination with the other parts of the original disclosure, fails to provide adequate written descriptive support for claim 19 as presently amended. "[T]he PTO has the initial burden of presenting evidence or reasons why persons skilled in the art would not recognize in the disclosure a description of the invention defined by the claims", *Wertheim*, 541 F.2d at 263, and the Examiner has not met that burden.

The Examiner argues that it is unclear how the Appellants form the lowest strength portion and the variable strength portions (Office Action mailed Sep. 22, 2005, p. 5). That argument appears to be directed toward enablement rather than written description. Regardless, the Specification discloses that those portions are formed by the heating technique used (Spec. 15: 5-26; figs. 11, 21).

The Examiner argues that claim 19 lacks adequate written descriptive support because the lowest fatigue strength portion and the variable strength portion are not shown in the drawings (Office Action mailed Sep. 22, 2005, p. 4).

How a disclosure shows possession of the presently claimed invention is not material. *See In re Kaslow*, 707 F.2d 1366, 1375 (Fed. Cir. 1983); *In re Edwards*, 568 F.2d 1349, 1351-52 (CCPA 1978). Hence, contrary to the Examiner's argument, for a disclosure to show adequate written descriptive support for the presently claimed invention, the claim limitations do not necessarily have to be shown in a drawing.

Thus, the Examiner has not established a prima facie case of failure of the Appellants' original disclosure to comply with the 35 U.S.C. § 112, first paragraph, written description requirement.

Rejection under 35 U.S.C. § 102(b) over JP '317

JP '317 discloses a method for making a connecting rod wherein a particular steel composition is heat treated and then transformed into martensite by quenching (pp. 5-6).

The Examiner argues that the "wherein" clauses in the Appellants' claims merely express an intended result and add nothing to patentability (Office Action mailed Sep. 22, 2005, p. 6).

The Examiner is incorrect. Each of the "wherein" clauses in the Appellants' claims pertains to a structural feature of the claimed connecting rod.

The Examiner argues that the JP '317 figure 12 shows that strength increases with a decrease in the cross sectional area (Ans. 9-10).

The JP '317 figure 12 shows a hardness range of 394-397 at the large end (14a), 394-401 at the narrowest portion of the rod portion I section (14b), and 396-399 at the small end (14c). Those hardness values appear to show an essentially constant hardness throughout the connecting rod, rather than showing the increase in strength with decrease in cross sectional area argued by the Examiner. The Examiner apparently relies upon the "401" hardness in portion 14b as being greater than the "397" hardness at large end 14a or the "399" hardness at small end 14c (Ans. 9-10). The Examiner has not taken into account the hardness ranges and explained why, in view of those ranges, the variation between 397 and 401 is not within the experimental error.

The Examiner argues that both the Appellants and JP '317 use the same hardening method and that, therefore, they must both obtain the same increase in strength with decrease in cross sectional area (Ans. 10).

JP '317 does not disclose the heating method disclosed by the Appellants. JP '317 merely discloses that the connecting rod is heated (p. 6). Thus, it appears that the connecting rod is heated uniformly. The Appellants disclose heating the connecting rod using an induction coil positioned as shown in figure 11, and rotating the connecting rod during the heating (Spec. 15:14-26). The Appellants also disclose heating using what appears to be an induction coil wrapped around the connecting beam section of the connecting rod (Spec. 21:27-29; fig. 21). The Examiner has not

established that the heating in JP '317 results in the same strength distribution as the heating disclosed by the Appellants.

Hence, the Examiner has not established a prima facie case of anticipation over JP '317 of the inventions claimed in the Appellants' claim 1 or its dependent claims 2 and 4.

*Rejections over Mrdjenovich and Haman*

The Examiner points out that Mrdjenovich and Haman disclose a connecting rod that gradually and continually decreases in cross sectional area toward the connecting beam section (Office Action mailed Sep. 22, 2005, p. 7). The Examiner argues that the Appellants' claim 1 is a product-by-process claim because it "has a 'wherein' clause that merely recites an inherent result of the process step 'heat treatment'" (Ans. 11). Therefore, the Examiner argues, the burden has shifted to the Appellants to establish an unobvious difference between the claimed connecting rod and those of Mrdjenovich and Haman. *See id.*

The Appellants' claim 1 is does not include a heat treatment step and is not a product-by-process claim. The "wherein" clause sets forth a structural requirement of the claimed connecting rod. The Examiner has not established that Mrdjenovich or Haman discloses the strength distribution required by that "wherein" clause.

The Examiner, therefore, has not established a prima facie case of anticipation over Mrdjenovich or Hamas of the invention claimed in the Appellants' claim 1.

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DECISION

The rejections of claims 19 and 21-25 under 35 U.S.C. § 112, second paragraph, claims 19 and 21-25 under 35 U.S.C. § 112, first paragraph, written description requirement, claims 1, 2 and 4 under 35 U.S.C. § 102(b) over JP '317, claim 1 under 35 U.S.C. § 102(b) over Mrdjenovich, and claim 1 under 35 U.S.C. § 102(b) over Haman are reversed.

REVERSED

vsh

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